



# NORLITE, LLC

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January 31, 2013

Karen M. Gaidasz, CPESC  
Environmental Analyst  
New York State Department of Environmental Conservation  
Region 4  
1130 North Westcott Road  
Schenectady, NY 12306-2014

RETURN RECEIPT REQUESTED VIA EMAIL

Mr. Kenneth Eng  
Air Compliance Branch  
United States Environmental Protection Agency  
Region 2  
290 Broadway  
New York, NY 10007-1866

RETURN RECEIPT REQUESTED VIA EMAIL

Re: Norlite Corporation-MACT Excessive Exceedances Report  
Kiln 1: 01/22/13 – 01/31/13  
Kiln 2: 01/22/13 – 01/31/13

Dear Sirs:

In accordance with 40 CFR 63.1206(c)(3)(vi), the Norlite Corporation (Norlite) is submitting an "Excessive Exceedance Report" for the timeframe of 01/22/13 thru 01/31/13. The attached document explains each of the "malfunctions" for Kilns One & Two.

The results of the investigation concluded a majority of the waste feed cutoffs were a result of the span limit associated with the stack gas flow monitor. The stack gas cutoffs associated with Kiln 1 are due in part to worn out internal parts of the scrubber system. These internals will be repaired or replaced during a planned 10 day shutdown starting on February 04, 2013. Once the internals are repaired or replaced, there should be much less water and soda ash solids contacting the Mist Pad which is contributing the stack gas cutoffs. As stated previously, Norlite and its consultant believe the stack gas cutoffs which are less than 2 minutes in duration to be associated with water droplets hitting the probe.

Norlite is preparing a protocol for the installation of the new scintillation technology flow meters to start the process of side by side data comparison. The hope is to gather data showing the accuracy of the new instruments and then seek approval to remove the current stack probes and to continue using the new monitors. The installation protocol will be completed and stamped by an independent engineer in the near future.

All of the malfunctions that occurred were consistent with our Startup, Shutdown and Malfunction Plan (SSMP). As approved by the NYSDEC on February 6, 2006, these reports are being sent electronically.



## NORLITE, LLC

Should you have any questions regarding this letter, please contact me at (518) 235-0401 or email at: [tvancouver@norlitecorp.com](mailto:tvancouver@norlitecorp.com).

Sincerely,

*Thomas Van Vranken*

Thomas Van Vranken  
Environmental Manager

### Attachments

ecc: Don Spencer, NYDEC – R4 w/attachments  
James Lansing, NYSDEC – CO w/attachments  
Joe Hadersbeck, NYSDEC – R4 w/attachments  
Tita LaGrimas, Tradebe



NORLITE, LLC  
MACT EXCEEDANCE REPORT - KILN 1  
01/22/13 - 01/31/13

| Start Date | Start Time | End Date  | End Time | Downtime | #  | Event       | Cause   | Parameter                           | Limit | Corrective Action                        |
|------------|------------|-----------|----------|----------|----|-------------|---|-------------------------------------|-------|--|
| 1/25/2013  | 0:58:48    | 1/25/2013 | 5:05:07  | 4:06:19  | 20 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Venturi D.P. Span Due to High Ducon D.P. Pressures Which Caused the ID Fan to be Lowered / Rinsed Mist Pad  | Venturi D.P.                        | Span  | Rinsed the Mist Pad                      |
| 1/26/2013  | 12:24:29   | 1/26/2013 | 16:47:17 | 4:22:48  | 21 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to the Mist Pad Being Coated With Soda Ash Solids / Rinsed Mist Pad  | Stack Gas Flow Rate                 | Span  | Rinsed the Mist Pad                      |
| 1/26/2013  | 16:54:25   | 1/26/2013 | 16:54:49 | 0:00:24  | 22 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Soda Ash Solids Coating the probe   | Stack Gas Flow Rate                 | Span  | I&E Cleaned Probe                        |
| 1/26/2013  | 16:55:37   | 1/26/2013 | 16:56:35 | 0:00:58  | 23 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Soda Ash Solids Coating the probe   | Stack Gas Flow Rate                 | Span  | I&E Cleaned Probe                        |
| 1/27/2013  | 1:34:03    | 1/27/2013 | 1:34:23  | 0:00:20  | 24 | Malfunction | The Kiln Was Experiencing Decreased System Draft Due to the Scrubber Being Partially Plugged. Rinsing the Mist Pad Helped Reduce the the Level of Plugging. Major Repairs Will Occur On the Baghouse and Scrubber System for this Kiln on 02/04/13. | Front Kiln Pressure, 1 Second Delay | Opl   | Adjusted Fuel Flow and LGF Line Pressure |
| 1/27/2013  | 17:29:13   | 1/27/2013 | 17:29:33 | 0:00:20  | 25 | Malfunction | The Kiln Was Experiencing Decreased System Draft Due to the Scrubber Being Partially Plugged. Rinsing the Mist Pad Helped Reduce the the Level of Plugging. Major Repairs Will Occur On the Baghouse and Scrubber System for this Kiln on 02/04/13. | Front Kiln Pressure, 1 Second Delay | Opl   | Adjusted Fuel Flow and LGF Line Pressure |
| 1/28/2013  | 0:15:21    | 1/28/2013 | 0:16:17  | 0:00:56  | 26 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Soda Ash Solids Coating the probe   | Stack Gas Flow Rate                 | Span  | I&E Cleaned Probe                        |
| 1/28/2013  | 0:39:20    | 1/28/2013 | 0:40:22  | 0:01:02  | 27 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Soda Ash Solids Coating the probe   | Stack Gas Flow Rate                 | Span  | I&E Cleaned Probe                        |
| 1/28/2013  | 1:40:36    | 1/28/2013 | 1:57:32  | 0:16:56  | 28 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Soda Ash Solids Coating the probe/Removing Large Aggregate Balls From the Cooler  | Stack Gas Flow Rate                 | Span  | Adjusted Fuel Flow                       |
| 1/28/2013  | 2:24:09    | 1/28/2013 | 2:43:49  | 0:19:40  | 29 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Soda Ash Solids Coating the probe/Removing Large Aggregate Balls From the Cooler  | Stack Gas Flow Rate                 | Span  | Adjusted Fuel Flow                       |
| 1/28/2013  | 16:20:54   | 1/28/2013 | 16:21:28 | 0:00:34  | 30 | Malfunction | The Kiln Was Experiencing Decreased System Draft Due to the Scrubber Being Partially Plugged. Rinsing the Mist Pad Helped Reduce the the Level of Plugging. Major Repairs Will Occur On the Baghouse and Scrubber System for this Kiln on 02/04/13. | Front Kiln Pressure, 1 Second Delay | Opl   | Adjusted Fuel Flow and LGF Line Pressure |



NORLITE, LLC  
MACT EXCEEDANCE REPORT - KILN 1  
01/22/13 - 01/31/13

| Start Date | Start Time | End Date  | End Time | Downtime | #  | Event       | Cause  | Parameter                           | Limit | Corrective Action  |
|------------|------------|-----------|----------|----------|----|-------------|--|-------------------------------------|-------|--|
| 1/28/2013  | 21:20:54   | 1/28/2013 | 21:22:07 | 0:01:13  | 31 | Malfunction | The Kiln Was Experiencing Decreased System Draft Due to the Scrubber Being Partially Plugged. Rinsing the Mist Pad Helped Reduce the the Level of Plugging. Major Repairs Will Occur On the Baghouse and Scrubber System for this Kiln on 02/04/13.  | Front Kiln Pressure, 1 Second Delay | Opl   | Adjusted Fuel Flow and LGF Line Pressure                                   |
| 1/28/2013  | 22:06:15   | 1/28/2013 | 22:06:46 | 0:00:31  | 32 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span   | Stack Gas Flow Rate                 | Span  | Adjusted Fuel Flow   |
| 1/28/2013  | 22:19:42   | 1/28/2013 | 22:20:39 | 0:00:57  | 33 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span   | Stack Gas Flow Rate                 | Span  | Adjusted Fuel Flow   |
| 1/28/2013  | 23:47:48   | 1/28/2013 | 23:48:19 | 0:00:31  | 34 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span   | Stack Gas Flow Rate                 | Span  | Adjusted Fuel Flow   |
| 1/28/2013  | 23:55:05   | 1/28/2013 | 23:55:48 | 0:00:43  | 35 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span   | Stack Gas Flow Rate                 | Span  | Adjusted Fuel Flow   |
| 1/29/2013  | 21:14:40   | 1/29/2013 | 21:18:31 | 0:03:51  | 36 | Malfunction | The Kiln Was Experiencing Decreased System Draft Due to the Scrubber Being Partially Plugged. Rinsing the Mist Pad Helped Reduce the the Level of Plugging. Major Repairs Will Occur On the Baghouse and Scrubber System for this Kiln on 02/04/13.  | Front Kiln Pressure, 1 Second Delay | Opl   | Adjusted Fuel Flow and LGF Line Pressure                                   |
| 1/30/2013  | 20:35:41   | 1/30/2013 | 20:37:39 | 0:01:58  | 37 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water From the Scrubber Hitting the Probe. The Scrubber System Was Partially Plugged Which Caused Excess Water in the Scrubber System. Some of the Excess Water Was Able to Pass By the Mist Pad As Water Droplets and Hit the Probe | Stack Gas Flow Rate                 | Span  | Cleaned the Recirculation Filter Baskets and Lowered the Recycle Flow Rate |
| 1/30/2013  | 20:49:18   | 1/30/2013 | 20:53:03 | 0:03:45  | 38 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water From the Scrubber Hitting the Probe. The Scrubber System Was Partially Plugged Which Caused Excess Water in the Scrubber System. Some of the Excess Water Was Able to Pass By the Mist Pad As Water Droplets and Hit the Probe | Stack Gas Flow Rate                 | Span  | Cleaned the Recirculation Filter Baskets and Lowered the Recycle Flow Rate |
| 1/31/2013  | 2:05:13    | 1/31/2013 | 2:14:40  | 0:09:27  | 39 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water From the Scrubber Hitting the Probe. The Scrubber System Was Partially Plugged Which Caused Excess Water in the Scrubber System. Some of the Excess Water Was Able to Pass By the Mist Pad As Water Droplets and Hit the Probe | Stack Gas Flow Rate                 | Span  | Cleaned the Recirculation Filter Baskets and Lowered the Recycle Flow Rate |



NORLITE, LLC  
MACT EXCEEDANCE REPORT - KILN 1  
01/22/13 - 01/31/13

| Start Date | Start Time | End Date  | End Time | Downtime | #  | Event       | Cause  | Parameter           | Limit | Corrective Action  |
|------------|------------|-----------|----------|----------|----|-------------|--|---------------------|-------|--|
| 1/31/2013  | 2:43:42    | 1/31/2013 | 2:44:40  | 0:00:58  | 40 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water From the Scrubber Hitting the Probe. The Scrubber System Was Partially Plugged Which Caused Excess Water in the Scrubber System. Some of the Excess Water Was Able to Pass By the Mist Pad As Water Droplets and Hit the Probe | Stack Gas Flow Rate | Span  | Cleaned the Recirculation Filter Baskets and Lowered the Recycle Flow Rate |
| 1/31/2013  | 4:58:46    | 1/31/2013 | 5:00:02  | 0:01:16  | 41 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water From the Scrubber Hitting the Probe. The Scrubber System Was Partially Plugged Which Caused Excess Water in the Scrubber System. Some of the Excess Water Was Able to Pass By the Mist Pad As Water Droplets and Hit the Probe | Stack Gas Flow Rate | Span  | Cleaned the Recirculation Filter Baskets and Lowered the Recycle Flow Rate |



NORLITE, LLC  
MACT EXCEEDANCE REPORT - KILN 2  
01/22/13 - 01/31/13

| Start Date | Start Time | End Date  | End Time | Downtime | #  | Event       | Cause   | Parameter                             | Limit | Corrective Action                        |
|------------|------------|-----------|----------|----------|----|-------------|---|---------------------------------------|-------|--|
| 1/20/2013  | 4:56:21    | 1/20/2013 | 5:58:40  | 1:02:19  | 34 | Malfunction | After a Tank Switch, the LGF Pump Started to Pulse Which Caused the Flame to Pulse and CO's to Rise   | Carbon Monoxide                       | Opl   | Adjusted the LGF Pump and Pump Pressure  |
| 1/24/2013  | 15:41:18   | 1/24/2013 | 15:42:09 | 0:00:51  | 35 | Malfunction | The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions | Back Chamber Pressure, 1 Second Delay | Opl   | Adjusted LGF Line Pressure and LGF Flow  |
| 1/24/2013  | 18:13:22   | 1/24/2013 | 18:18:13 | 0:04:51  | 36 | Malfunction | Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System   | Front Kiln Pressure, 1 Second Delay   | Opl   | Adjusted Fuel Flow and LGF Line Pressure |
| 1/29/2013  | 17:10:03   | 1/29/2013 | 17:10:34 | 0:00:31  | 37 | Malfunction | Instantaneous Upper Instrument Setpoint Reached for LGF Flow Span Due to Controlling LGF Flow With Valves While Having High LGF Line Pressure   | LGF Flow                              | Span  | Adjusted Fuel Flow                       |